Release notes for ENDF/B Development n-054_Xe_129 evaluation

April 26, 2017

- `checkr` Warnings:

  1. A previous error halted parsing of the current section
     MAT=5440, MF= 1, MT=451 (1): Parsing stopped

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 1, MT=451
         SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER     246 TO     308
     ```

- `checkr` Errors:

  1. A variable is outside the allowed ENDF range
     MAT=5440, MF= 1, MT=451 (0): Variable range

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 1, MT=451
         MOD =    1 OUT OF RANGE    0 -    0          RECORD NUMBER     246
     ```

  2. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 2, MT=151 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 2, MT=151
         SECTION  2/151 NOT IN DIRECTORY              RECORD NUMBER     310
     ```

  3. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 3, MT= 1 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 3, MT=  1
         SECTION  3/  1 NOT IN DIRECTORY              RECORD NUMBER     528
     ```

  4. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 3, MT= 2 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 3, MT=  2
         SECTION  3/  2 NOT IN DIRECTORY              RECORD NUMBER     557
     ```

  5. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 3, MT= 4 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 3, MT=  4
         SECTION  3/  4 NOT IN DIRECTORY              RECORD NUMBER     585
     ```

  6. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 3, MT= 16 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 16
         SECTION  3/ 16 NOT IN DIRECTORY              RECORD NUMBER     605
     ```

  7. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5440, MF= 3, MT= 17 (0): Directory (b)

1

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 17
           SECTION  3/ 17 NOT IN DIRECTORY                 RECORD NUMBER      616
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5440, MF= 3, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 22
           SECTION  3/ 22 NOT IN DIRECTORY                 RECORD NUMBER      622
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5440, MF= 3, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 28
           SECTION  3/ 28 NOT IN DIRECTORY                 RECORD NUMBER      636
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 32 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 32
           SECTION  3/ 32 NOT IN DIRECTORY                 RECORD NUMBER      646
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 51
           SECTION  3/ 51 NOT IN DIRECTORY                 RECORD NUMBER      654
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 52 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 52
           SECTION  3/ 52 NOT IN DIRECTORY                 RECORD NUMBER      674
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 53 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 53
           SECTION  3/ 53 NOT IN DIRECTORY                 RECORD NUMBER      692
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 54 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 54
           SECTION  3/ 54 NOT IN DIRECTORY                 RECORD NUMBER      709
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 55 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 55
           SECTION  3/ 55 NOT IN DIRECTORY                RECORD NUMBER      726
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 56
           SECTION  3/ 56 NOT IN DIRECTORY                RECORD NUMBER      742
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 57 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 57
           SECTION  3/ 57 NOT IN DIRECTORY                RECORD NUMBER      758
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 58 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 58
           SECTION  3/ 58 NOT IN DIRECTORY                RECORD NUMBER      773
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 59 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 59
           SECTION  3/ 59 NOT IN DIRECTORY                RECORD NUMBER      788
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 60 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 60
           SECTION  3/ 60 NOT IN DIRECTORY                RECORD NUMBER      803
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 61 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 61
           SECTION  3/ 61 NOT IN DIRECTORY                RECORD NUMBER      817
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 62 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 62
           SECTION  3/ 62 NOT IN DIRECTORY                RECORD NUMBER      831
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 63 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 63
           SECTION  3/ 63 NOT IN DIRECTORY              RECORD NUMBER    844
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 64 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 64
           SECTION  3/ 64 NOT IN DIRECTORY              RECORD NUMBER    856
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 65 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 65
           SECTION  3/ 65 NOT IN DIRECTORY              RECORD NUMBER    868
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 66 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 66
           SECTION  3/ 66 NOT IN DIRECTORY              RECORD NUMBER    880
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT= 91
           SECTION  3/ 91 NOT IN DIRECTORY              RECORD NUMBER    891
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=102 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=102
           SECTION  3/102 NOT IN DIRECTORY              RECORD NUMBER    902
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=103 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=103
           SECTION  3/103 NOT IN DIRECTORY              RECORD NUMBER    926
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=104 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=104
           SECTION  3/104 NOT IN DIRECTORY              RECORD NUMBER    942
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=105 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=105
           SECTION  3/105 NOT IN DIRECTORY                    RECORD NUMBER     955
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=106 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=106
           SECTION  3/106 NOT IN DIRECTORY                    RECORD NUMBER     967
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 3, MT=107 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 3, MT=107
           SECTION  3/107 NOT IN DIRECTORY                    RECORD NUMBER     978
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 2 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 4, MT=  2
           SECTION  4/  2 NOT IN DIRECTORY                    RECORD NUMBER     995
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 16 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 16
           SECTION  4/ 16 NOT IN DIRECTORY                    RECORD NUMBER    1186
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 17 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 17
           SECTION  4/ 17 NOT IN DIRECTORY                    RECORD NUMBER    1197
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 22
           SECTION  4/ 22 NOT IN DIRECTORY                    RECORD NUMBER    1208
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 28
           SECTION  4/ 28 NOT IN DIRECTORY                    RECORD NUMBER    1219
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 32 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 32
             SECTION  4/ 32 NOT IN DIRECTORY                    RECORD NUMBER    1230
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 51 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 51
             SECTION  4/ 51 NOT IN DIRECTORY                    RECORD NUMBER    1241
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 52 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 52
             SECTION  4/ 52 NOT IN DIRECTORY                    RECORD NUMBER    1269
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 53 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 53
             SECTION  4/ 53 NOT IN DIRECTORY                    RECORD NUMBER    1294
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 54 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 54
             SECTION  4/ 54 NOT IN DIRECTORY                    RECORD NUMBER    1322
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 55 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 55
             SECTION  4/ 55 NOT IN DIRECTORY                    RECORD NUMBER    1350
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 56 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 56
             SECTION  4/ 56 NOT IN DIRECTORY                    RECORD NUMBER    1378
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 57 (0): Directory (b)

```
          ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 57
             SECTION  4/ 57 NOT IN DIRECTORY                    RECORD NUMBER    1406
```

47. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 58 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 58
         SECTION  4/ 58 NOT IN DIRECTORY                RECORD NUMBER    1434
```

48. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 59 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 59
         SECTION  4/ 59 NOT IN DIRECTORY                RECORD NUMBER    1462
```

49. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 60 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 60
         SECTION  4/ 60 NOT IN DIRECTORY                RECORD NUMBER    1490
```

50. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 61 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 61
         SECTION  4/ 61 NOT IN DIRECTORY                RECORD NUMBER    1518
```

51. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 62 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 62
         SECTION  4/ 62 NOT IN DIRECTORY                RECORD NUMBER    1543
```

52. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 63 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 63
         SECTION  4/ 63 NOT IN DIRECTORY                RECORD NUMBER    1570
```

53. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 64 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 64
         SECTION  4/ 64 NOT IN DIRECTORY                RECORD NUMBER    1595
```

54. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 65 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 65
         SECTION  4/ 65 NOT IN DIRECTORY                RECORD NUMBER    1622
```

55. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 66 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 66
          SECTION  4/ 66 NOT IN DIRECTORY                 RECORD NUMBER    1649
```

56. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 4, MT= 91 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 4, MT= 91
          SECTION  4/ 91 NOT IN DIRECTORY                 RECORD NUMBER    1676
```

57. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 16 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 16
          SECTION  5/ 16 NOT IN DIRECTORY                 RECORD NUMBER    1704
```

58. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 17 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 17
          SECTION  5/ 17 NOT IN DIRECTORY                 RECORD NUMBER    1779
```

59. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 22 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 22
          SECTION  5/ 22 NOT IN DIRECTORY                 RECORD NUMBER    1803
```

60. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 28 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 28
          SECTION  5/ 28 NOT IN DIRECTORY                 RECORD NUMBER    2008
```

61. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 32 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 32
          SECTION  5/ 32 NOT IN DIRECTORY                 RECORD NUMBER    2114
```

62. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5440, MF= 5, MT= 91 (0): Directory (b)

```
       ERROR(S) FOUND IN MAT=5440, MF= 5, MT= 91
          SECTION  5/ 91 NOT IN DIRECTORY                 RECORD NUMBER    2165
```

- `psyche` Warnings:

1. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ISOTOPE MASS = 129. L = 0 / STRENGTH FUNCTION IS 1.03196E-04 / STRENGTH FUNCTION 1.03196E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

   ```
   FILE  2
      SECTION 151
          ISOTOPE MASS = 129. L =  0
                     STRENGTH FUNCTION IS  1.03196E-04
                                    STRENGTH FUNCTION 1.03196E-04
   ... [1 more lines]
   ```

2. Non-threshold reaction with Q value differing from PSYCHE's expectations
   FILE 3 / SECTION 103 / THE CALCULATED Q 7.09801E+05 DISSAGREES WITH THE GIVEN Q 5.89955E+05 (0): Iffy Q

   ```
   FILE  3
      SECTION 103
            THE CALCULATED Q  7.09801E+05 DISSAGREES WITH THE GIVEN Q  5.89955E+05
   ```

- `recent` Warnings:

   1. Competative widths aren't all zero like they're supposed to be
      0: LRX=0

      ```
      Calculate Cross Sections from Resonance Parameters (RECENT 2015-1)
      =======================================================================
      Retrieval Criteria-----------        MAT
      File 2 Mimimum Cross Section- 1.0000E-10 (Standard Option)
      Reactions with No Background-    Output (Resonance Contribution)
      ... [453 more lines]
      ```

- `fudge-4.0` Warnings:

   1. Potential scattering hasn't converged, you need more L's!
      resonances / resolved / MultiLevel_BreitWigner (Error # 0): potentialScatteringNotConverged

      ```
      WARNING: Potential scattering hasn't converged by L=0 at E=4100.0 eV, xs[0]/xs[0]=100.0% > 0.1%
      ```

   2. Cross section does not match sum of linked reaction cross sections
      crossSectionSum label 0: total (Error # 0): CS Sum.

      ```
      WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.30%
      ```

   3. Cross section does not match sum of linked reaction cross sections
      crossSectionSum label 1: (z,n) (Error # 0): CS Sum.

      ```
      WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.13%
      ```

- `fudge-4.0` Errors:

   1. Calculated and tabulated Q values disagree.
      reaction label 18: n[multiplicity:'2'] + Xe128 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6368894.000534058 eV vs -6.9124e6 eV!
```

2. Calculated and tabulated Q values disagree.
   reaction label 19: n[multiplicity:'3'] + Xe127 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -15979456.904953 eV vs -1.65337e7 eV!
```

3. Calculated and tabulated Q values disagree.
   reaction label 20: n + H1 + I128 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -7708647.291809082 eV vs -8257130. eV!
```

4. Calculated and tabulated Q values disagree.
   reaction label 21: n + H2 + I127 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -12310212.77508545 eV vs -1.27771e7 eV!
```

5. Calculated and tabulated Q values disagree.
   reaction label 22: Xe130 + gamma (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 9795414.861862183 eV vs 9255090. eV!
```

6. Calculated and tabulated Q values disagree.
   reaction label 23: n + He4 + Te125 (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -1560330.224136353 eV vs -2.1004e6 eV!
```

7. Calculated and tabulated Q values disagree.
   reaction label 24: H1 + I129_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 1128098.357452393 eV vs 589955. eV!
```

8. Calculated and tabulated Q values disagree.
   reaction label 25: H2 + I128_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -5484081.190872192 eV vs -5947010. eV!
```

9. Calculated and tabulated Q values disagree.
   reaction label 26: H3 + I127_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6052979.834472656 eV vs -6591960. eV!
```

10. Calculated and tabulated Q values disagree.
    reaction label 27: He3 + Te127_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: -6736413.72857666 eV vs -7268330. eV!
```

11. Calculated and tabulated Q values disagree.
    reaction label 28: He4 + Te126_s (Error # 0): Q mismatch

```
WARNING: Calculated and tabulated Q-values disagree: 7553361.646194458 eV vs 7022690. eV!
```

- `njoy2012` Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 16
                        only mf4/mf5 provided
   ```

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 17
                        only mf4/mf5 provided
   ```

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 22
                        only mf4/mf5 provided
   ```

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 28
                        only mf4/mf5 provided
   ```

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 32
                        only mf4/mf5 provided
   ```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
   groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

   ```
   ---message from conver---cannot do complete particle production for mt= 91
                        only mf4/mf5 provided
   ```

11